



**AFMC**

# **Price Analysis Methods**

**HQ AFMC/PK**



# Why We Need Training

**AFMC**

- **Repetitive IG Findings**
- **DDP letter, 21 Mar 02**
  - Obtain information on same/similar items
  - Use this information to complete a thorough price analysis
  - Document that price is reasonable
  - Based on DOD/IG recommendations Nov 01
- **Reinforce Pricing Skills**
  - Field Comments and Pricing Chiefs recommendation
  - Update pricing skills
- **Transformation**
  - 4:1 Cycle Time Reduction
  - Responsiveness instead of bureaucracy
- **SAF/AQC Assessment of Pricing Skills**





# Course Emphasis

**AFMC**

- **Primarily price analysis methods, documentation, and related issues**
  - **Commercial and sole source procurements but not limited to those (subject of IG findings)**
  - **Part 15 and Part 12 actions, not Part 14**
  - **Performance Based Payments (PBP)**
- **Targeted at Level II/III Contracting**
- **Intent is to have interactive discussions**
  - **Based on real life examples**
- **Obtain feedback for future policy/training/guidance initiatives**



# Agenda

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- **Price versus Cost Analysis**
  - **Truth in Negotiation Act**
  - **Commercial Definition**
- **Price Analysis Methods in FAR**
  - **Adequate Price Competition**
- **Performance Based Payments**
- **Negotiations**



# **Agenda Topic #1**

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# **Price Versus Cost Analysis**



# Price vs. Cost Analysis

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- **Price Analysis is...**
  - Look at total price
  - Reasonableness is based on a comparison of proposed prices to same or similar items
  - Profit is imbedded in price
  
- **Cost Analysis is...**
  - Look at detailed cost breakout
  - Reasonableness is based on a thorough analysis of each cost element
  - Profit is evaluated



# Price vs. Cost Analysis

**AFMC**

- **Truth in Negotiation Act (TINA) says**
  - **MUST obtain cost or pricing data (certified) over \$550,000 UNLESS**
    - » **Price Based on Adequate Price Competition**
      - » **Price analysis, usually comparison of offers**
    - » **Law or Regulation (mainly utilities)**
    - » **Commercial Item**
      - » **Price analysis**
    - » **Waived by Head Of Contracting Activity**
      - » **Price analysis, but may analyze uncertified cost data**
      - » **Must be approved by HCA without delegation**
        - » **Approval: SAF/AQ for PEO/DAC, HQ AFMC/CC for Other**
  - **Use cost analysis for procurements over \$550,000 where an exception/waiver does not apply**
- **Will discuss commercial definition on next slide**
- **Will discuss standards for Adequate Price Competition later**



# Commercial Definition

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**FAR 2.101: Commercial Item means --**

**(a) Any item, other than real property, that is of a type customarily used for non-governmental purposes**

**and that --**

**(1) Has been sold, leased, or licensed to the general public;**

**or,**

**(2) Has been offered for sale, lease, or license to the general public;**





# Commercial Definition

**AFMC**

- **Issues**

- **CO makes decision!**
- **Not everything is commercial**
- **Document decision**
  - » **Base decision on facts and rationale in appropriate detail**
- **Myths**
  - » **Commercial prices are not negotiable**
  - » **Catalog prices are assumed fair and reasonable**
- **Facts**
  - » **Most commercial price/terms can be negotiated**
  - » **Market research can provide basis for reasonable prices**





## **Agenda Topic #2**

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**AFMC**

# **PRICE ANALYSIS METHODS IN FAR**



# **Price Analysis Methods in FAR**

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**AFMC**

**FAR 15.404-1(b)(2) includes the following examples of price analysis:**

- **COMPARE PROPOSED PRICES**
- **PREVIOUS PRICES**
- **Parametric**
- **Catalog or published prices**
- **Government estimates**
- **Market prices**
- **Pricing information provided by offeror**



# Price Analysis Methods in FAR

**AFMC**

- **The first two techniques are the preferred techniques (15.404-1(b)(3))**
  - **If CO determines that information on competitive proposed prices or previous contract prices is insufficient to determine that the price is fair and reasonable**
    - » **May use any of the remaining techniques**
    - » **Roughly listed: Least Intrusive to Most Intrusive**
- **But don't ignore any pertinent information!**
  - **Government estimate**
  - **Market research**
  - **Historical prices**
  - **Explain what you concluded on any price information**
- **Document all methods used!!**
  - **If a method or data was not useable, say so and tell why**





# Price Analysis Methods in FAR

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**AFMC**

**FAR 15.404-1(b)(2) includes the following examples of methods of price analysis:**

- **COMPARE PROPOSED PRICES**



# Comparison of Proposed Prices

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**AFMC**

- **Comparison of proposed prices received in response to solicitation (competitive)**
- **Considered reasonable unless PCO has information to believe it is not**
  - **Especially if competition meets standard for Adequate Price Competition in FAR**



# Comparison of Proposed Prices

**AFMC**

## Example: Aircraft Shelter

- 3 proposals received from responsible, responsive offerors
  - » \$ 9.5M
  - » \$10.0M
  - » \$10.3M
- FFP type contract
- Based on price analysis, would you consider the \$9.5 Million price fair and reasonable?



# Comparison of Proposed Prices

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**AFMC**

- **Based on price analysis, would you consider the proposed prices fair and reasonable?  
(If circumstances meet FAR definition of adequate price competition)**

**YES**

**What documentation is required?**





# Adequate Price Competition

**AFMC**

- **APC FAR reference 15.403-1(c)(1)**
- **Comparison to other proposed prices received is normally used as part of adequate price competition (APC) determination**
- **What conditions need to exist for APC?**
  - Expected at least 2 offers
  - Compete independently
  - Can satisfy government requirements
  - Best value award
  - Price offered is not unreasonable
  - Price is a substantial factor in source selection
- **Use Price Competition Memorandum (PCM) when above Simplified Acquisition Threshold (\$100,000)**
  - Source Selection
  - Performance Price trade Off
- **Use abstract when below \$100,000 or if using Lowest Price Technically Acceptable (LPTA) procedures**
  - Add Determination of Price Reasonableness





# Adequate Price Competition

**AFMC**

## Consider the previous Aircraft Shelter example:

- 3 proposals received from responsible, responsive offerors
  - » \$ 9.5M
  - » \$10.0M
  - » \$10.3M
- FFP type contract
- What if the government estimate was \$6.5M? Does that change your conclusion?



# Adequate Price Competition

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**AFMC**

- **It depends!**
- **You need to analyze and document the difference.**
- **In this case, it was found the government estimate was based on different requirements:**
  - **Commercial air conditioning vs. special air conditioning**
  - **No special filtration system needed vs. special filtration system required**
- **Revised Government estimate was in line with prices received**



# Adequate Price Competition

**AFMC**

- **Can APC exist with only one offer in a competition solicitation?**
- **Yes, it can exist with only one offer IF:**
  - **Reasonable expectation that two or more responsible offerors would submit offers**
    - » **Must be real, not an “atmosphere of competition”**
  - **The Contracting Officer can reasonably conclude that the offer was submitted with the expectation of competition: e.g. Circumstances indicate that:**
    - » **Offeror believed at least one other offeror was capable of submitting meaningful offer, and**
    - » **Offeror had no reason to believe the other potential offerors did not intend to submit an offer**
- **Market research is also performed**
- **Determination that proposed price is based on APC, is reasonable and approved at a level above CO**
  - » **Find out level required**
- **Must clearly document**





# Adequate Price Competition

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**AFMC**

- **Aircraft Tires**
  - Two sources had competed for previous buys
  - CO solicited same two offerors for current buy
  - After bids received for current buy, one source was disqualified due to high failure rate
  - For current buy, the one remaining qualified offeror submitted a bid at \$388 each
  - Previous purchase was \$375 each for similar quantity in 1998
- **Is the \$388 price reasonable?**
- **Is there adequate price competition?**



# Adequate Price Competition

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**AFMC**

- **CO determined adequate price competition existed:**
  - **No reason to believe the one offeror anticipated it was the only offer.**
    - » **The qualified offeror was not aware other offeror had problems**
  - **Circumstances indicated there was competition**
    - » **Price was similar to previous proposals under competition**
  - **CO determined the \$388 price fair and reasonable**



# Adequate Price Competition

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**AFMC**

- **Example: Tire example**
  - 2 months later, due to war in Afghanistan, urgent requirement surfaced for additional tires
- **Is a price of \$388 reasonable?**
- **Is a price of \$475 reasonable?**



# Adequate Price Competition

**AFMC**

- It depends on the circumstances; however, \$388 is most likely reasonable and \$475 is apparently not, all things being equal
- The \$388 could be considered fair and reasonable because
  - FAR 15.403-1(c)(iii) states that if price analysis clearly demonstrates that proposed price is reasonable in comparison with current or recent prices for the same or similar items adjusted to reflect changes in market conditions, economic conditions, quantities, or terms and conditions under contracts that resulted from adequate price competition



- Although the \$475 is apparently unreasonable,
  - Under a true urgent and compelling situation, may use value analysis with other price analysis techniques
    - » Contracting Officers may only buy items at fair and reasonable prices
    - » Value analysis will be discussed later





# Adequate Price Competition

**AFMC**

- **One-offer competition can result in reasonable prices but:**
  - **Be careful that circumstances really support that competition existed**
    - » Sending out a number of RFPs does not mean there is competition
    - » Incumbent versus new offeror when start up cost is significant may indicate competition not present
      - » May make sense to invest in adding a new source
  - **Don't refer to "competitive atmosphere" as a justification**
    - » Use current market research
    - » Review circumstances
- **Obtain proper approval and document clearly**
  - **One offer situations may be subject to oversight by IG and others**





# Price Analysis Methods in FAR

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**AFMC**

**FAR 15.404-1(b)(2) includes the following examples of methods of price analysis:**

- **COMPARE PROPOSED PRICES**
- **PREVIOUS PRICES**



# Compare to Previous Prices

**AFMC**

## Price Analysis includes:

- **Validating basis of prior determination of fair and reasonable**
  - Competitive, sole source, commercial?
  - Prior award date
  - Quantity
  - Price
- **Analyzing any variances for current buy**
  - Escalation, quantity, etc.
- **J041 history reports has some information on previous buy**





# Compare to Previous Prices

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**AFMC**

- **Example: Aircraft Spare Part**
- **Price History:**
  - 1999 \$25,100 each for 10 (based on competition)
  - 2000 \$26,500 each for 6 (based on price analysis of previous price)
  - 2002 current proposal for \$27,500 each for 5
  - Is the current proposed price reasonable?
  - What is the basis for price reasonableness?



# Spare Parts

**AFMC**

- **The proposed price appears reasonable, however document the basis for price reasonableness**
  - **If the basis for price reasonableness was the 2000 price of \$26,500, that is an invalid comparison**
    - » **AFMCFARS 5315.404-1 states that a prior price which was determined reasonable solely by comparison to another prior price is NOT a valid comparison base unless additional price analysis is performed to ensure that it is still a valid basis for comparison**
- **To determine reasonableness of \$27,500 current proposal, must use other methods**
  - **Could use the 1999 price of \$25,100, if other factors such as escalation, quantity, etc. can be quantified to bridge the difference between the two prices**
  - **However, be sure to address the 2000 price in documentation, don't ignore it**
- **Be aware of basis of previous prices!**



# Compare to Previous Prices

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**AFMC**

- **Example: F-16 FMS Buy**
- **Previous buy:**
  - \$10.6M each (certified cost or pricing data) for 12 F-16C bought 2 years ago
  - Same country as current buy
- **Current Proposal: 12 each F-16C (1 seat) @ \$10.9M each & 12 each F-16D (2 seat) @ \$12.4M each**
  - Want to obtain TINA Waiver and use price analysis
- **Would history be applicable in this case? What can you do?**



# Compare to Previous Prices

**AFMC**

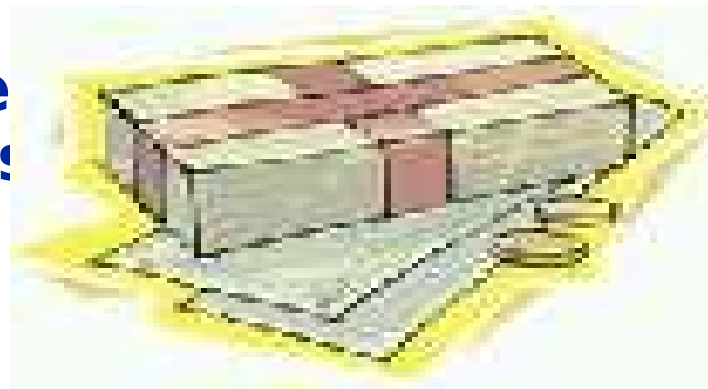
- **Used regression analysis on previous prices**
  - \$10.6M each for 12 C version and added 10% (technical estimate) for D version
  - Considered all adjustments
    - » Technical changes, vendor changes, etc.
  - Used DCAA for escalation rates
  - Within same block
  - Recurring costs only
- **Cost data for nonrecurring**
- **TINA Waiver**
  - Does not relieve contractor from providing data - just doesn't have to certify
  - Must still have enough data to support reasonable price
- **What were the results?????**



# Compare to Previous Prices

**AFMC**

- **For Total Aircraft:**
  - **Proposed: \$288M**
  - **AF Objective: \$278M**
  - **Negotiated: \$280M**
- **More streamline proposal process**







# **Compare to Previous Prices**

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**AFMC**

- **Be Aware of:**
  - **New item vs. overhaul with same National Stock Number**
  - **Urgent vs. normal delivery schedule**
  - **Technology change**
  - **Configuration change**
  - **Terms and conditions**
  - **Manufacturing process changes**
  - **Market conditions**
  - **Etc.**



# Compare to Previous Prices

**AFMC**

- **Document details of analysis**
- **For example:**
  - **Escalation used**
    - » Time, rate, etc.
  - **Basis and currency of previous price**
    - » Competition, cost analysis, etc.
  - **Similarity of items**
    - » Any difference affecting price
  - **Explain differences or adjustments**
    - » Quantify price differences





# Price Analysis Methods in FAR

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**AFMC**

**FAR 15.404-1(b)(2) includes the following examples of price analysis:**

- **COMPARE PROPOSED PRICES**
- **PREVIOUS PRICES**
- **Parametric**



# Parametrics

**AFMC**

- **Prices based on mathematical formula**
- **Valid and accepted price analysis method that is occasionally used**
- **But be cautious!**
  - **Contact your Price Analyst or DCAA Financial Advisor**



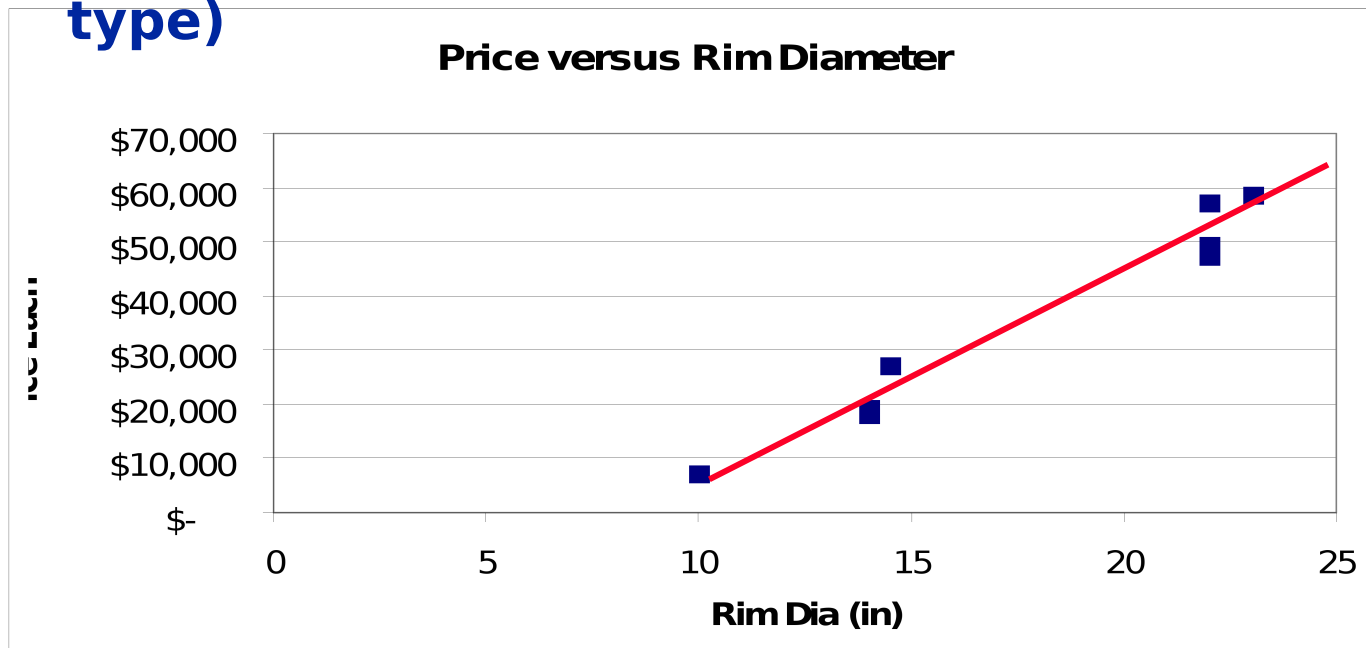


# Parametric

**AFMC**

## -Tires and Brakes example

- Cost versus size graph shows relationship of brake prices to rim diameter
- One of a number of parameters evaluated
- Military brake similar to commercial (of a type)





# Price Analysis Methods in FAR

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**AFMC**

**FAR 15.404-1(b)(2) includes the following examples of price analysis:**

- **COMPARE PROPOSED PRICES**
- **PREVIOUS PRICES**
- **Parametric**
- **Catalog or published prices**



# Catalog Pricing

**AFMC**

- **FY99 Authorization Act states:**
  - “When obtaining information from the offeror is necessary, ... submitted by the offeror shall include, at a minimum, appropriate information on the prices at which the same or similar items have been sold previously, ...”
- **Compare to prices found in published catalog including all conditions**
- **Consider it a sole source offer to be negotiated**
- **Consider:**
  - Trade discounts
  - Terms and conditions
  - Quantity discounts
  - Payment terms



**HOW DO YOU FIND OUT ABOUT THESE?**



# Catalog Pricing

**AFMC**

- **Do market research**
- **Contact other agencies**
- **Ask offeror for access to sales invoices**
  - Find out prices, current discounts, etc. for similar sales
  - Offeror may give access to actual sales invoices but not allow taking notes or making copies
  - May require that other customers not be disclosed
- **Review actual sales information, discounts, terms**
  - Law gives us access (FY99 Authorization Act)
- **Use DCAA Financial Advisors**
  - Review in plant
  - Other contracts
  - Assist with market research







# Catalog Pricing

**AFMC**

- **Example: Fiber Optics**
- **Found one contractor who could provide 24 pair fiber optic cable**
  - **Proposed \$2.3 Million**
  - **Commercial firm**
  - **Commercial market for 22 and 28 pair cable**
- **Is the price fair and reasonable?**
- **What documentation is required?**



# Catalog Pricing

**AFMC**

- **Reviewed sales history provided by contractor:**
  - **Allowed to review data but not make copies**
  - **Contractor sold 22 and 28 pair fiber optic cable at similar quantity to commercial customers with 45% discounts**
- **Consulted with DISA, a government agency that buys large quantities of similar**
  - **They received discounts of 30%-50% for similar items and quantities**
- **Negotiated a 49% discount from catalog price**
  - **On hand so seller motivated**
  - **Immediate delivery available**



# Catalog Pricing

**AFMC**

- **GSA Schedule**
  - **Do not use schedule price as sole basis for reasonableness determination**
  - **Ceiling prices**
    - » **GSA Schedule Price usually for quantity of one**
  - **May use as data point**
  - **GSA performs limited analysis**
  - **GSA encourages negotiations**
  - **AFMC letter; General Services Administration (GSA) Schedules and Pricing (16 Oct 01)**
    - » **FAR 8.404b(3) and (4) state that items priced above the micro purchase threshold should be subject to additional price analysis and that contracting officers should seek additional price reductions for those purchases over the maximum order threshold**



# Price Analysis Methods in FAR

**AFMC**

**FAR 15.404-1(b)(2) includes the following examples of price analysis:**

- **COMPARE PROPOSED PRICES**
- **PREVIOUS PRICES**
- **Parametric**
- **Catalog or published prices**
- **Government estimates**



# Comparison to Government Estimates

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**AFMC**

- **Definition of government estimate**
  - Many times developed for budgetary purposes
- **Determine components of estimate**
- **Use as data point**
- **If significant variance from proposed prices:**
  - Identify and quantify major reasons for difference
    - » Technical differences
    - » Market conditions
    - » Budget constraints
- **Document all the above**



# Comparison to Gov't Estimates

**AFMC**

- **Example of Government Estimate**
- **Shelter example we discussed earlier**
  - **Government estimate based on incorrect specification**
  - **Analyzed differences and adjusted estimate**
- **Not necessary to redo estimate, just understand significant differences and document!**



# Market Research

**AFMC**

- **For same or similar items**
- **Primarily the web or phone calls**
- **Use DCAA Financial Advisors**
- **Available tools:**
  - **MR PoST**
  - **ConConnect**
  - **Haystack (Spares)**
  - **Bureau of Labor Statistics**
- **Documentation**
  - **FAR 10.002(e) states Market Research should be documented but does not say how**
- **Critical**
  - **Who you talked to and what was said**
  - **MR PoST provides report**

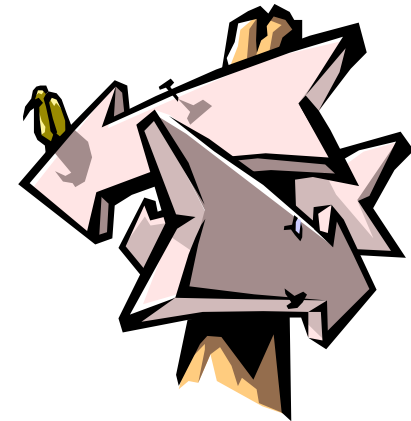




# Market Research Tools

**AFMC**

- **Market Research Performance Support Tool (MR PoST)**
  - **MR PoST can assist Air Force personnel in**
    - » **outlining requirements**
    - » **conducting market research queries**
    - » **assessing query results**
    - » **documenting market analysis**
    - » **and more**



– <https://afkm.wpafb.af.mil/ASPs/Market/mrpost/mrpostclassic.htm>





# Market Research Tools

**AFMC**

- **ConConnect**
  - **ConConnect provides you with a choice of AFMC ordering contracts**
    - » **AFMC contracts allowing ordering by others**
    - » **Useful when performing market research**
    - » **Use with the ConConnect Decision Tree**
      - » **Will help you provide the right vehicle**
      - » **Right business advice to your customers when they need it**
  - **<https://www.conconnect.wpafb.af.mil/welcome/welcome.asp>**



# Market Research Tools

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**AFMC**

- **Haystack - Spare Parts Search Engine**
  - **Fee based service**
  - **Provides historical pricing/price history**
  - **National Stock Number (NSN)**
  - **Part number**
  - **CAGE code**
  - **Technical characteristics**
  - **Product Item Description (PID) data**
  - **Dozens of other parameters**
- **<http://www.ihs.com/haystack/>**



# Market Research Tools

**AFMC**

- **Bureau of Labor Statistics (BLS)**
  - Data on wages, benefits by location, industry or job category
  - Consumer and Producer Price Indices (CPI) and (PPI) with details by type of industry and commodity
  - A lot of other economic data
  - Most data tracks past changes and is not projected
- **<http://www.bls.gov/home.htm>**



# Market Research Escalation Index

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**AFMC**

- **The source for economic data and past/future escalation rates is the DRI-WEFA website**
- **DRI and WEFA companies merged**
  - **New company provides same service as before**
- **Of the services listed, AFMC subscribes to**
  - **North America: U. S. Regional**
  - **Industry: Cost and Industry Data**
  - **Provides escalation rates for projecting costs, evaluating proposed escalation rates and future labor rates**
- **The website address**  
**<http://www.dri-wefa.com/login/login.cfm>**
- **For access**
  - **Contact local pricing office for password and instruction on how to use**
  - **DCAA Financial Advisors can also advise**



# Market Research Tools

**AFMC**

- **Example: Missile Silo fan**
- **Previous procurement: Five years ago for \$156 each (quantity 1074 units)**
- **Current quote: \$580 each for 500 units**
- **Escalated price from previous buy with quantity change: \$342**
- **What to do?**



# Market Research Tools

**AFMC**

- **PCO conducted Market Research**
  - Technical people should have done this up front but PCO did research in this case
- **Found a commercial fan that appeared to meet Government specifications**
  - Contacted firm
  - Found that only alteration was to not paint a specific part
  - Engineering reviewed and agreed that commercial fan would meet needs
  - Firm agreed to make minor modification
- **Quoted a price of \$345 each and reduced price about 40% from original proposal**



# Market Research

**AFMC**

- **Market Research is key to successful procurement**
- **Great potential**
- **When item is first introduced as commercial item, perform market research**
- **Never know what you may find**
  - **Example:**
    - » **During the fact-finding as part of a major negotiation**
    - » **Buyer on team happened to find unrelated company that had a supply of FAA certified parts bought from an airline**
    - » **Buyer happened to be working a PR for these kind of parts**
    - » **Arranged to buy these parts versus buying new manufacture**
  - **Saved over \$1 Million for same quality**



# Price Analysis Methods in FAR

**AFMC**

**FAR 15.404-1(b)(2) includes the following examples of methods of price analysis:**

- **COMPARE PROPOSED PRICES**
- **PREVIOUS PRICES**
- **Parametric**
- **Catalog or published prices**
- **Government estimates**
- **Market prices**
- **Pricing information provided by offeror**





# Pricing Information from Offeror

**AFMC**

- **Other Than Cost or Pricing Data**
  - **Can request as last resort if other methods will not provide support for reasonable price**
    - » **Not certified**
  - **Sales data**
    - » **Other contract prices/quantities**
  - **Could be part of proposal or separate fact-finding request**
  - **Data can be in company format**
  - **Labor rates, bills of material, etc.**
- **Least preferred (most intrusive)**



# Pricing Information from Offeror

**AFMC**

## **Examples:**

- **1) Remember F-16 FMS buy**
  - » Recurring part of proposal had consistent history available
    - » Use price analysis
  - » Nonrecurring costs required unique tasks
    - » Use cost analysis
- **2) Large, unique simulator that was determined commercial**
  - » Difficult to do price analysis, needed cost data
  - » Contractor refused to provide any useful data
  - » Finally, price analyst performed price analysis using limited comparable data
  - » Determined that proposed amount of \$20 million should be about \$10 million
  - » Asked customer if they wanted to “pay \$20 million for a \$10 million simulator”
  - » Customer said “no” and cancelled procurement
- **Key point: Don’t fight battles to get scraps of data and forget that purpose is to determine reasonable price**



# Value Analysis

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**AFMC**

- **Use in conjunction with Price Analysis**
  - **FAR 15.404-1(b)(4)**
- **Document critical need**
- **Quantify impact**



# Value Analysis

**AFMC**

- **Example: Helicopter Part (Nut)**
  - **Normal price was \$100 each in quantity**
  - **Needed 1 part for pilot training class in process for several pilots**
  - **Only quote for quantity of 1 was for \$350**
    - » **Outside of normal manufacturing sequence**
    - » **Immediate delivery**
- **Is this a reasonable price?**
- **What documentation is required?**



# Value Analysis

**AFMC**

- **Is this a reasonable price? Price appears unreasonable when compared to history, is reasonable based on value analysis**
- **To document reasonableness:**
  - » **Several hundred dollars of TDY**
  - » **Disruption of training**
  - » **Transportation costs**
- **Flag price history indicating price was based on value analysis hence higher price**
  - » **J041 has code for Value Analysis**
  - » **Put into PNM**
- **Make sure it is a real need**
  - » **Not just money expiring or someone wants better turn time metrics**



## **Agenda Topic #3**

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**AFMC**

# **Performance Based Payments**

**A Better Financing Process for  
Government & Industry**



# Performance Based Payments

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**AFMC**

- **Government policy (FAR 32.104) is to provide contract financing for non-commercial items to the extent needed for prompt and efficient performance**
  - FAR 32.2 covers commercial item financing
  - Available to small businesses for contracts over simplified acquisition threshold
  - Available to large businesses for contracts over \$2M
- **Also available under Part 12 if commercial practice**



# Performance Based Payments

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**AFMC**

## DoD Policy Letter

- **DoD must make Performance Based Payments “the primary and most commonly used form of contract financing”**
- **FY 2002 goal is 25% of DoD contracts over \$2M and more than 50% by 2005**
- **User’s Guide for Performance Based Payments**
  - **Issued 22 Jan 2001 and available via DoD Deskbook**  
**<http://web1.deskbook.osd.mil/default.asp>**





# Performance Based Payments

**AFMC**

- **Performance Based Payments**
  - **Authorized for use on definitized Fixed Price type contracts only**
    - » **Not authorized for letter contracts and change orders**
    - » **Payments are made based on:**
      - » **Performance measured by objective, quantifiable methods**
      - » **Accomplishment of defined events**
      - » **Other quantifiable measures of results**
  - **Payment amounts pre-determined based on cash flow forecast**
    - » **Unless contract states otherwise, payments are not tied to actual costs incurred**



# Performance Based Payments

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**AFMC**

## **ADVANTAGES:**

- **If done correctly, enhanced technical and schedule focus by linking financial payments to performance**
- **Broadened contractor participation**
  - **Eliminates requirement for approved accounting system to qualify for financing**
- **Lower overall administrative cost (maybe)**
  - **No need for non-value added cost based oversight**
- **Substantial cash flow benefits for contractor**
  - **Cash flow significantly better than progress payments with fewer payments**



# Performance Based Payments

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**AFMC**

## **GUIDELINES:**

- Establish events which are an integral and necessary part of contract performance
- An event need not be a critical event in order to trigger a payment, but successful performance of each such event or performance criterion shall be readily verifiable
- Events may be severable or cumulative
- Payment amounts are based on the whole contract or delivery line item basis.
- Total payments cannot exceed 90% (maximum, not standard) of total contract or delivery item price.
- PBPs cannot be combined with other financing



# **Performance Based Payments ~~Whole Contract Basis~~**

**AFMC**

- **Total PBPs cannot exceed 90 percent of the total contract price**
  - **Contract must specify the liquidation rate for all priced contract deliverable items.**
  - **Example:**
    - » **Contract Price = \$100M**
    - » **Total PBPs = \$ 85M**
    - » **Liquidation Rate = 85% ( \$85M / \$100M)**
  
- CLIN 0001 Price = \$20M**  
**Upon CLIN 0001 delivery contractor is paid \$3M**  
**[\$20M x (1 - liq rate of 85%) = \$3M]**



# Performance Based Payments ~~Delivery Item Basis~~

**AFMC**

- Each PBP is tied to a specific priced delivery item
- Total PBPs tied to a deliverable item cannot exceed 90 percent of that delivery item price
  - Every priced delivery item need not have a PBP tied to it.
  - Upon delivery, contractor is paid the item price minus any PBPs received against that item
  - Example: Total Contract \$100M (2 Priced CLINs)

» CLIN 0001 Price	\$90M	
» Total CLIN 0001 PBPs	<u>-\$81M</u>	(Could not exceed 90% of \$90M)
» Payable on Delivery	\$ 9M	
» CLIN 0002 Price	\$10M	
» Total CLIN 0002 PBPs	<u>0</u>	(No PBPs were tied to CLIN 0002)
» Payable on Delivery	\$10M	



# Performance Based Payments

**AFMC**

## Checklist:

<b>Fixed Price</b>	<input checked="" type="checkbox"/>
<b>Contract</b>	<input checked="" type="checkbox"/>
<b>Definitized</b>	<input checked="" type="checkbox"/>
<b>Contract</b>	<input checked="" type="checkbox"/>
<b>Meaningful,</b>	<input checked="" type="checkbox"/>
<b>Verifiable</b>	<input checked="" type="checkbox"/>
<b>Performance Events</b>	<input checked="" type="checkbox"/>
<b>Reliable Expenditure</b>	<input checked="" type="checkbox"/>
<b>Profile</b>	<input checked="" type="checkbox"/>



# **Performance Based Payments**

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**AFMC**

## **Key Steps:**

- 1. Establish Detailed Program Schedule**
- 2. Identify Key Performance Milestones - PBP Events**
- 3. Establish Completion Criteria for PBP Events**
- 4. Determine Monthly Expenditure Profile (EP)**
- 5. Establish Event Values**



# Performance Based Payments

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**AFMC**

- **A PBP event should:**
  - **Be a definitive milestone in the path to contract completion, not something that simply “happens” along the way**
  - **Represent true value added, not simply effort expended.**





# Performance Based Payments

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**AFMC**

- **Completion Criteria must be:**
  - Specified in the contract
  - Objective
  - Clear
- **Per FAR 32.1007(d):**

The contracting officer shall not approve a performance-based payment until the specified event or performance criterion has been successfully accomplished in accordance with the contract



# Performance Based Payments

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**AFMC**

## **PBP Event Value:**

- **PBP are financing, not advance payments or incentive payments**
  - **Payments need to provide “adequate” cash flow to the contractor**
  - **Payments should reflect the “value” of the completed effort through that event**
  - **Event payment amount is not the cost of performing the particular event**



# Performance Based Payments

**AFMC**

- **Event: Engine Delivery**
- **Completion Criteria: Delivery of Engine to Prime Contractor. The Engine must be delivered and accepted defect free.**

**– IS THIS A GOOD EVENT??**





# PBP Event & Criteria

AFMC

## Event : Receipt of all Production

- **Material Completion Criteria:** All production material will be considered received when the longest lead time part, Decoder, Part # X11115AC, has been received or is being reported as "Late" on the weekly Material Action Report.



- **IS THIS A GOOD EVENT??**

*How could payment not be approved ? The part is either delivered or it is "late"!*



# PBP Event & Criteria

AFMC

**Event : Remove jacks from aircraft**

- **Completion Criteria: Remove jacks and place aircraft on landing gear**
- **IS THIS A GOOD EVENT??**



***Poor incentive. Removing jacks made remaining work harder to do***



# Performance Based Payments

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**AFMC**

## Win-Win Negotiation:

- **The use of PBPs should result in a lower contract price (Government win)**
  - **Weighted Guidelines for PBP vs. Prog Pay contracts yield profit rates that are generally lower (about .2% to 3.7% lower depending on contract length)**
  - **Must negotiate lower price if contractor gets better financing**
- **How can a lower price be a “Win” situation for the contractor?**



# Performance Based Payments

**AFMC**

- **The primary benefit of PBP to the contractor is expedited cash flow (Contractor win)**
- **The timing of cash flow is important because of the “Time Value” of money**
  - **A dollar to be received one year from now is worth less to me than a dollar received today**



# Performance Based Payments

## Time Value Of Money

### Discount Rate - Gov't

**AFMC**

The time value of money to the Gov't is based on what it costs the Gov't to borrow money needed to pay its bills.

Therefore, the Gov't uses the Treasury Rate (Cost of Money Rate) as the “Discount Rate” by which to determine the time value of money.





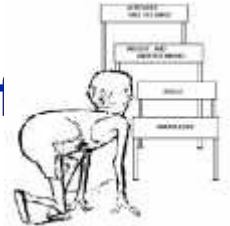


# Performance Based Payments Time Value Of Money

~~Discount Rate - Contractor~~ **AFMC**

The time value of money to the contractor is based on its corporate "Hurdle Rate"

The Hurdle Rate is the expected rate of return that a project must yield to be approved



The Hurdle Rate is always higher than what it costs the corporation to raise money. Its cost of raising money is called the Weighted Average Cost of Capital (WACC) and is based on the two ways corporations raise money:

Debt (borrowing) & Equity (selling stock)



# WACC Formula

**AFMC**

$$WACC = R_d (1 - T_c) \frac{D}{V} + R_e \frac{E}{V}$$

**$R_d$**

The pre-tax cost of debt, based on the current yield on traded company debt instruments or estimated, taking account of company gearing, size, industry risk, etc

**$T_c$**

The marginal corporate tax rate

**$D, E \&$**

D and E are the market values of the business' debt and equity respectively and V is the sum of D and E. Therefore, D/V and E/V represent the relative weightings of debt and equity employed in the business' operations

**$R_e$**

The cost of equity capital :

$$R_e = R_f (1 - T_i) + b_e [R_m - R_f (1 - T_i)]$$



# Performance Based Payments

~~Different Views = Win / Win~~ AFMC

**Government View - Treasury Rate (about 6%)**

**Contractor View - Hurdle Rate (15% to 20%)\***

This difference between contractors' and Government's view of the time value of money sets the stage for a real Win / Win scenario.

\* Hurdle Rates vary by contractor but most are in the 15% to 20% range (pre-tax)

# Discounted Cash Flow / Return On Investment (ROI)

## With Progress Payments

Total Price	\$28,365,338
Profit Rate	12.00%
Return On Investment (ROI)	40.67%
Final Cost to Govt	\$29,534,119
KTR NPV @ Hurdle Rate	\$1,817,852

\$000

Mo	Contractor Expenditure	Prog Pay Payment	DD 250 Payment	Cash Flow	Cum Cash Flow
1	(460,198)	345,149		(115,050)	(115,050)
2	(459,617)	344,713		(114,904)	(229,954)
3	(663,707)	497,780		(165,927)	(395,881)
4	(655,582)	491,687		(163,896)	(559,776)
5	(675,285)	506,464		(168,821)	(728,597)
6	(1,310,773)	983,080		(327,693)	(1,056,291)
7	(1,339,426)	1,004,570		(334,857)	(1,391,147)
8	(1,741,728)	1,306,296		(435,432)	(1,826,579)
9	(2,279,883)	1,709,912		(569,971)	(2,396,550)
10	(2,609,811)	1,957,358		(652,453)	(3,049,003)
11	(2,060,174)	1,545,131		(515,044)	(3,564,046)
12	(2,488,672)	1,866,504		(622,168)	(4,186,214)
13	(1,849,723)	1,387,292		(462,431)	(4,648,645)
14	(1,066,140)	799,605		(266,535)	(4,915,180)
15	(2,522,510)	1,891,883		(630,628)	(5,545,807)
16	(1,109,541)	832,156		(277,385)	(5,823,193)
17	(376,659)	282,494		(94,165)	(5,917,357)
18	(469,053)	351,790		(117,263)	(6,034,621)
19	(317,657)	238,243		(79,414)	(6,114,035)
20	(360,731)	270,548		(90,183)	(6,204,218)
21	(264,085)	198,064	1,337,239	1,271,218	(4,933,000)
22	(92,279)	69,209	6,432,164	6,409,094	1,476,095
23	(52,673)	39,505		(13,168)	1,462,926
24	(59,540)	44,655	1,337,239	1,322,354	2,785,280
25	(31,696)	23,772		(7,924)	2,777,356
26	(9,052)	6,789	264,051	261,788	3,039,144
Tot	(25,326,195)	18,994,646	9,370,693	3,039,144	

Total Price: 28,365,338

PBP  
% of Price

## With PBP

Total Price	\$28,045,441
Profit Rate	10.74%
Return On Investment (ROI)	64.19%
Final Cost to Govt	\$29,431,317
KTR NPV @ Hurdle Rate	\$1,900,236

\$000

PBP Payment	DD 250 Payment	Cash Flow	Cum Cash Flow
345,149		(115,050)	(115,050)
344,713		(114,904)	(229,954)
497,780		(165,927)	(395,881)
491,687		(163,896)	(559,776)
506,464		(168,821)	(728,597)
983,080		(327,693)	(1,056,291)
1,004,570		(334,857)	(1,391,147)
1,306,296		(435,432)	(1,826,579)
1,711,503		(568,380)	(2,394,959)
4,663,282		2,053,471	(341,488)
-		(2,060,174)	(2,401,662)
-		(2,488,672)	(4,890,334)
6,014,655		4,164,932	(725,402)
-		(1,066,140)	(1,791,542)
-		(2,522,510)	(4,314,052)
4,416,300		3,306,759	(1,007,294)
-		(376,659)	(1,383,953)
-		(469,053)	(1,853,006)
1,093,567		775,910	(1,077,096)
-		(360,731)	(1,437,827)
-	550,418	286,333	(1,151,494)
674,069	2,647,530	3,229,320	2,077,827
-		(52,673)	2,025,154
-	550,418	490,878	2,516,032
135,274		103,578	2,619,610
	108,686	99,634	2,719,244
24,188,387	3,857,052	2,719,244	

28,045,441

24,188,387  
86.2%

FIND ROI

Gov Break Even

Ktr Break Even

Win/Win Solution

RESET

This example shows win-win potential  
of converting from Prog Pay to PBP  
using quarterly PBP events



# Performance Based Payments

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**AFMC**

- **Summary**

- **PBP is the preferred method of government contract financing *when practical***
- **PBP can be a win-win arrangement if structured properly**



# Agenda Topic #4

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**AFMC**

## Negotiations





# Negotiation Objective

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**AFMC**

- **May be range of acceptable prices versus point estimate**
  - Market research
  - Financing
  - Discounts
- **Market Leverage**
  - Understand place in the market
  - Do what you can to increase leverage
- **Summarize results of analysis**
- **Document**



# Win-Win Negotiations

**AFMC**

## Government's Focus

- Total price (fair and reasonable)
- Performance
- Schedule
- Control our risk
- Reduce administrative time
- Increase vendor base

## Contractor's Focus

- Return on Investment (ROI)
- Reduce their risk
- Reduce administrative burdens
- Increase future business





# Win-Win Negotiations

**AFMC**

- **Example: Business Jet**
  - **Proposed: \$87M**
  - **Compared proposed price to actual sales data from contractor records**
    - » **Looked at data but could not keep notes/make copies**
  - **Additional comparison of similar planes with same quantities**
  - **Catalog price of green airplane (no discounts) plus additions resulted in \$75M**
  - **Contracting Officer had only \$67M**
- **What to do?**



# Win-Win Negotiations

**AFMC**

- **Additional facts:**
  - **Plane almost complete with no buyer**
  - **AF needed immediately**
- **Negotiated \$67M**
  - **Understanding that PNM would be documented that price not to be used for comparative purposes in the future (\$75M would be used)**
  - **Provided payment on award (95%) based on plane being nearly complete**



# Win-Win Negotiations

**AFMC**

- **Example: Shifting Risk**
  - **Contract to install test equipment on a Government aircraft**
    - » **Government requested two week time period to deliver aircraft to contractor facility**
    - » **Contractor needed to keep crew on hand entire two weeks**
  - **Agreed to one week period at lower price**
    - » **Government accepts risk of being able to deliver in tighter time**
    - » **Contractor has less cost/risk of keeping people in place**
      - » **People available for other work**
    - » **Agreed to lower price (profit)**



# Documenting Negotiated Agreement

**AFMC**

- **Explain difference from Proposed to Objective to Negotiated Agreement**
- **Don't let your failure to document be perceived as a failure to negotiate a fair and reasonable business arrangement!!**
- **Follow formats**
  - **PNM Guide located on PKP Policy Vault under Guides**
    - » <https://www.afmc-mil.wpafb.af.mil/HQ-AFMC/PK/pkp/guides.htm>
  - **To preserve Government rights under defective pricing, must document date of negotiations, what data was relied upon and how it impacted price**
- **Make sure your logic tracks and numbers add**
- **Tell the complete story in an understandable manner**
- **Remember the PNM is a stand alone document!**



# Summary

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**AFMC**

**DOCUMENT!**

**DOCUMENT!**

**DOCUMENT!**

